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Amendments to the Claims:

1. (previously presented) An optical device for discretionary treatment of channels of an optical beam, said optical device comprising:

a port for at least transmitting or receiving a first beam having a plurality of channels;

a wavelength discriminating device optically coupled to said port, said wavelength discriminating device adapted for at least one of receiving said first beam and diffracting said beam into a plurality of channel beams or receiving a plurality of channel beams and combining said channel beams into said first beam; and

an array of reflective elements, said reflective elements exceeding the number of channels, each reflective element being adapted to rotate about at least one axis, and having a first position at which said reflective element is rotated fully in one direction, a second position at which said reflective element is rotated fully in the opposite direction, and one or more intermediate positions between said first and second positions, at least a portion of said reflective elements being optically coupled to said wavelength discriminating device and reflecting said channel beams, at least two reflective elements of said portion corresponding to a particular channel beam, said at least two reflective elements being controllable to be positioned in said one or more intermediate positions to effect a desired output of said particular channel beam.

2. (previously presented) The optical device of claim 1, wherein said at least two reflective elements are controllable to perform at least one of coupling said particular channel beam to one or more ports, switching said particular channel beam among two or more port, attenuating all or a portion of said particular channel beam, or creating a group delay profile in said particular channel beam.

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3. (previously presented) The optical device of claim 1, wherein said optical device has x, y, and z axes with the z axis being along the optical axis of the port, and wherein said reflective elements are controllable such that they are moveable in at least one of three directions, a first direction in which the reflective element is rotated about the y axis, a second direction in which the reflective element is rotated about an axis parallel to the x axis, and a third direction in which the reflective element is moved along the z axis.

4. (previously presented) The optical device of claim 3, wherein said reflective elements are configurable in just the first direction or in just the second direction.

5. (previously presented) The optical device of claim 3, wherein said reflective elements are configurable in all three directions.

6. (previously presented) The optical device of claim 3, further comprising: secondary ports, said port and secondary ports being aligned along the y axis with their optical axes parallel to the z axis, and wherein a certain movement of said at least two reflective-elements about an axis parallel to the x-axis causes a channel beam to couple with a port along said y-axis.

7. (previously presented) The optical device of claim 6, wherein said certain movement of said at least two reflective elements about an axis parallel to the x-axis causes a channel beam to switch from one port to a different port along said y axis.

8. (previously presented) The optical device of claim 6, wherein said certain movement of said at least two reflective elements about the y-axis produces a group delay profile in said channel beam.

9. (previously presented) The optical device of claim 1, wherein said array is a linear array.

10. (previously presented) The optical device of claim 1, wherein said array is a two dimensional array.

11. (previously presented) The optical device of claim 1, wherein each reflective element has a width of less than 50 μm.

12. (previously presented) The optical device of claim 1, wherein said array of reflective elements has a linear fill density of no less than about 95%.

13. (previously presented) The optical device of claim 1, wherein said at least two reflective elements comprise at least two adjacent reflective elements and the z delta of said adjacent reflective elements complies with the following equation:

$\lambda/2\ n - \lambda/8 \leq z\ \text{delta} \leq \lambda/2\ n + \lambda/8$, where λ is the wavelength of said particular channel beam and $n = 0, 1, 2, \ldots 1000$.

14. (previously presented) The optical device of claim 1, wherein said reflective elements are configured in at least one of three ways, a first way in which at least a portion of said reflective elements receive said channel beams from said wavelength discriminating device, a second way in which at least a portion of said reflective members reflect said channel beams to said wavelength discriminating device for combining into said first beam, and a third way in which a different portion of said reflective elements reflect a portion of said channel beams to said wavelength discriminating device for combining into a second beam having fewer channels than said first beam.

15. (previously presented) The optical device of claim 14, wherein said reflective elements are configured in said first and third way.

16. (previously presented) The optical device of claim 14, wherein said reflective elements are configured in said first way only.

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17. (previously presented) The optical device of claim 16, wherein said wavelength discriminating device is not in the optical path between said reflective elements and said secondary ports.

18. (previously presented) The optical device of claim 15, wherein said wavelength discriminating device is in the optical path between said reflective elements and said secondary ports.

19. (previously presented) The optical device of claim 14, wherein said reflective elements are configured in said second way only.

20. (previously presented) The optical device of claim 14, wherein said reflective elements are configured in said third way only.

21. (previously presented) The optical device of claim 1, wherein said port is a fiber.

22. (previously presented) The optical device of claim 1, further comprising:
secondary ports wherein each secondary port transmits or receives a secondary beam having an equal or fewer number of channels than said beam.

23. (previously presented) The optical device of claim 22, wherein at least one secondary beam is a single channel beam and where n at least one secondary beam is a multichannel beam.

24. (previously presented) The optical device of claim 22, wherein said por is an input port and said secondary ports are output ports.

25. (previously presented) The optical device of claim 22, wherein said por. is an output port and said secondary ports are import ports.

26. (previously presented) The optical device of claim 1, wherein said port is an input and an output port such that it transmits said beam and receives a secondary beam.

27. (previously presented) The optical device of claim 1, wherein said wavelength discriminating device comprises one or more of the following a diffraction grating, prism, and an arrayed waveguide grating (AWG).

28. (currently amended) A method of assembling an optical device having one or more ports, a wavelength discriminating device optically coupled to one or more ports, an array of reflective elements, wherein the number of reflective elements significantly exceeds the number of channels handled by said optical device, each reflective element being adapted to rotate about at least one axis, and having a first position at which said reflective element is rotated fully in one direction, a second position at which said reflective element is rotated fully in the opposite direction, and one or more intermediate positions between said first and second positions, said method comprising:

before one or more reflective elements are aligned actively to optically couple with a desired port, fixing the position of said array of reflective elements in said optical device such that a portion of the reflective elements is in the optical path of a channel beam optically coupled to said wavelength discriminating device, and

after said array is fixed in position relative to said optical device rotating at least two reflective elements of said portion to said one or more intermediate positions to optically couple said channel beam with a desired port.

29. (previously presented) The method of claim 28, wherein the reflective elements are fixed in the optical device using passive alignment.

30. (previously presented) A method of configuring an optical device for discretionary treatment of channels of an optical beam, said optical device having one or more ports, a wavelength discriminating device optically coupled to one or more ports, an array of reflective elements optically coupled to said wavelength discriminating device, each reflective element being adapted to rotate about at least one axis, and having a first position at which said reflective element is rotated fully in one direction, a second position at which said reflective element is rotated fully in the opposite direction, and one or more intermediate positions between said first and second positions, wherein the number of reflective elements significantly exceeds the number of channels handled by said optical device, said method comprising:

inputting said channel beams in said optical device such that said channel beams are incident on particular reflective elements, wherein at least one channel beam is incident on at least two reflective elements; and

rotating said at least two reflective members to said one or more intermediate positions to optically couple at least a portion of said at least one channel beam to one or more ports.

31. (previously presented) A method of switching channels in an optical device having x, y, and z axes and comprising two or more ports along the y-axis, a wavelength discriminating device coupled to one or more of said ports, and an array of reflective elements, each reflective element being adapted to rotate about at least one axis parallel to said x axis, and having a first position at which said reflective element is rotated fully in one direction, a second position at which said reflective element is rotated fully in the opposite direction, and one or more intermediate positions between said first and second positions, at least a portion of said reflective elements being optically coupled to said wavelength discriminating device to reflect said channel beams, at least two reflective elements of said portion corresponding to a particular channel beam, said method comprising:

rotating said at least two reflective elements to said one or more intermediate positions to switch the optical coupling of said particular channel beam from one port to another port along said y-axis.

32. (previously presented) A method of switching channels in an optical device having x, y, and z axes and comprising at least one port, a wavelength discriminating device coupled to said port, and an array of reflective elements, each reflective element being adapted to rotate about at least one, and having a first position at which said reflective element is rotated fully in one direction, a second position at which said reflective element is rotated fully in the opposite direction, and one or more intermediate positions between said first and second positions, at least a portion of said reflective elements being optically coupled to said wavelength discriminating device and at least two reflective elements of said portion corresponding to a particular channel beam, said method comprising:

rotating a first selection of said at least two reflective elements to different intermediate positions to produce a desired group delay profile for said particular channel beam.

33. (cancelled)

34. (previously presented) The method of claim 32, wherein said optical device comprises two or more ports aligned along said y axis and wherein said first selection of elements are rotated about said y axis, and wherein each reflective element is adapted to rotate about a second axis parallel to said x axis, and having a third position at which said reflective element is rotated fully in one direction about said second axis, a fourth position at which said reflective element is rotated fully in the opposite direction about said second axis, and one or more second intermediate positions between said third and fourth positions, and further comprising:

rotating a second selection of said at least two reflective elements to said one or more second intermediate positions to achieve a desired transmission profile or switching function, or both, between said ports for said particular channel beam.

35. (cancelled)

36. (previously presented) The method of claim 34, wherein said first and second selections comprise at least one common reflective element.

37. (previously presented) The method of claim 31, wherein said at least two reflective elements are adjacent reflective elements having a z delta in which $\lambda/2\ n - \lambda/8 <$ z delta $< \lambda/2\ n + \lambda/8$, where λ is the wavelength of said particular channel beam, and n = 0, 1, 2, . . . 1000.

38. (previously presented) The method of claim 30, wherein said at least two reflective elements are adjacent reflective elements having a z delta in which $\lambda/2\ n - \lambda/8 <$ z delta $\leq \lambda/2\ n + \lambda/8$, where λ is the wavelength of said particular channel beam and n = 0, 1, 2, . . . 1000.

39. (previously presented) The device of claim 1, wherein each reflective element is adapted to be positioned in any intermediate position between said first and second positions.

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